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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

HUANG, S

ART UNIT

PAPER NUMBER

2736

DATE MAILED:

07/19/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**09/396,352**

Applicant(s)

**Tumay O. Tumer**

Examiner

**Sihong Huang**

Group Art Unit

**2736**



☒ Responsive to communication(s) filed on Sep 14, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 1 and 3-26 is/are pending in the application

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1 and 3-26 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is responsive to the Response to Restriction Requirement and Amendment filed on June 13, 2000. As directed by the response and amendment, claim 2 has been canceled and new claims 3-26 have been added. Thus, claims 1 and 3-26 are presently pending in this patent application with claims 1 and 3 being the independent claims.

In the applicant's response and amendment filed on June 13, 2000, the serial number located in the upper left corner on each page is wrong. It should read as 09/396,352 instead of 09/396,362.

### ***Claim Objections***

2. Claims 5, 8 and 23 are objected to because of the following informalities:

The preambles of dependent claims 5 and 8 are not consistent with the preamble of the independent claim 3.

In claim 23, the terms "circuits", "capacitor(s)", "antennas" and "the same integrated circuit" are unclear to which circuits, capacitor(s), antennas and integrated circuit they refer since there's only one circuit (the integrated circuit) and no capacitor(s) nor antennas being mentioned prior to such claimed terminologies.

Appropriate correction is required.

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***Claim Rejections - 35 USC § 112***

3. Claims 11, 24 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 11, 24 and 25, the phrase "such as" renders the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 3-10, 12, 13 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Cofino et al. (U.S. Pat. No. 5,966,082).

Regarding claim 3 and 9, Cofino discloses an ID tag (30) for application to article (col. 1, lines 5-13) comprising in combination: an application specific integrated circuit (see col. 2, lines 3-4 in Cofino) having, a write control for writing information and programming into the

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integrated circuit (36 and col. 4, lines 21-27), a read control for reading out information from the integrated circuit (40 and col. 4, lines 32-41), an antenna (32) for receiving and transmitting information from the integrated circuit to a receiver (col. 4, lines 32-39).

Regarding claims 4, 5 and 10, Cofino also discloses that at least one capacitor stores radio wave energy received by the antenna (32) for supplying energy to the ID tag (col. 4, lines 9-17).

Regarding claims 6-8, Cofino in col. 3, lines 64-67 and col. 4, lines 5-7 and 14-17 discloses that the antenna 32 is used to receive radio wave energy as well as information and programming.

Regarding claims 12 and 13, Cofino discloses a nonvolatile memory for storing information (44, 70).

Regarding claim 22, Cofino in col. 4, lines 35-38 discloses a back scatter type of antenna.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 11, 16-19 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cofino et al. (U.S. Pat. No. 5,966,082).

Regarding claim 11, although Cofino does not disclose that energy can be received from the claimed sources (such as microwaves, infrared, visible light and ultraviolet light), such particular energy sources is well known in the art and therefore an obvious modification to the ID tag of Cofino.

Regarding claims 16-19, although Cofino does not specifically disclose that the receiving and/or transmitting information is in the specific form (such as analog form or digital form), converting one to another by using an A/D or D/A converter is a well known technique in the art and therefore an obvious modification to the tag of Cofino.

Regarding claim 23, although Cofino does not specifically disclose that all circuits, capacitor(s) and antennas are built onto the same integrated circuit, Cofino in col. 2, lines 3-4 suggests that a single chip (IC) should be used to contain all elements in order to reduce the cost of the tags. Since the antenna must be connected to the chip for operation, the antenna can be considered as part of the chip.

Regarding claims 24 and 25, although Cofino does not specifically disclose the claimed materials being used to build or mount the IC on, such materials used in making tags are well known in the art and therefore an obvious modification to the tag of Cofino depending on the type of article the tag attached to.

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Regarding claim 26, although Cofino does not disclose that the IC contains test and monitoring points, pads controls and circuits, incorporating additional function, capability, circuit, or device to the tag is well known in the art and therefore an obvious modification to the tag of Cofino.

8. Claims 1, 14, 15, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cofino et al. (U.S. Pat. No. 5,966,082) in view of Wood Jr. (U.S. Pat. No. 5,842,118).

Regarding claim 1, Cofino discloses an ID tag (30) for application to article (col. 1, lines 5-13) comprising in combination: an application specific integrated circuit (see col. 2, lines 3-4 in Cofino and col. 4, lines 9-10 in Wood) having, a write control for writing information and programming into the integrated circuit (36 and col. 4, lines 21-27), a read control for reading out information from the integrated circuit (40 and col. 4, lines 32-41), an antenna (32) for receiving radio wave energy (col. 3, lines 64-67 and col. 4, lines 5-7 and 14-17) and transmitting information from the integrated circuit to a receiver (col. 4, lines 32-39); and at least one capacitor for supplying energy to the integrated circuit (col. 4, lines 9-17). Cofino differs from the claimed invention in that Cofino does not specifically disclose two separate antennas for receiving and transmitting. However, as evidenced by Wood, the alternative of utilizing two separate antennas (44, 46) over a single one is extremely well known in the art (see col. 4, lines 3-9 and lines 53-57). Since both Cofino and Wood disclose a RFID tag for application to article, the purpose or advantage of providing two separate antennas for receiving and transmitting as

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taught by Wood for optimizing powering and communication links instead of reducing the size and cost of such ID tag when a single antenna is used for both receiving and transmitting would have been recognized as being pertinent to the ID tag of Cofino. Thus, it would have been an obvious modification to the ID tag of Cofino with the teaching of Wood.

Regarding claim 14, although neither Cofino nor Wood discloses a multiplexer for controlling the flow of information and data, Wood in col. 7, lines 6-10 discloses the capability of switching from one mode to another (such as from a "sleep" mode to an "active" mode) for controlling the flow of information. Employing a multiplexer would have been obvious to a person of ordinary skill in the art.

Regarding claim 15, Wood in col. 7, line 66 discloses clock pulses, thus, a clock pulse generating circuit would have been inherently included.

Regarding claim 20, Wood discloses a clock generator circuit (38 and col. 9, lines 27-34).

Regarding claim 21, Wood in col. 7, line 62 and col. 10, line 51 discloses a shift register circuit.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bowers et al. (U.S. Pat. No. 5,963,134), Meier (U.S. Pat. No. 5,541,604), Schuermann (U.S. Pat. No. 5,374,930) and Beigel (U.S. Pat. No. 5,973,598) are cited to show other RFID



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tags (transponders) capable of receiving and transmitting information from and to an interrogator (reader) and are powered by the received signal.

10. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications intended for entry)

**Or:**

(703) 305-3988, (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA.,  
Sixth Floor (Receptionist).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sihong Huang whose telephone number is (703) 305-3966.

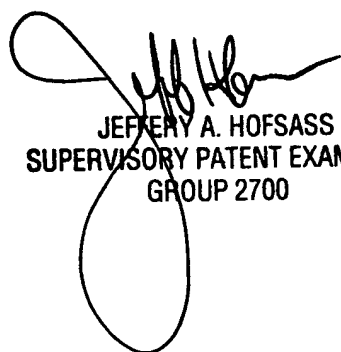
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Hofsass, can be reached on (703) 305-4717.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

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JEFFERY A. HOFSSASS  
SUPERVISORY PATENT EXAMINER  
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S. Huang

July 15, 2000